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*         VOLUME ONE, NUMBER TWO  -- DECEMBER 1984         *
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Hello again! We've made it to the second issue, but are
still suffering with a plain face (see above). If you come up
with a good logo for the First Mindset Users Group and its news-
letter, send it in. If we use yours, you'll have the satisfac-
tion of seeing your design at the top of the first page of your
favorite newsletter every month (or two). Speaking of which, the
more contributions we receive, the faster we can put out the
newsletter. It's not that easy to fill a newsletter with just
one person doing all the writing. Since this is a newsletter,
not a commercial magazine, your writing need not be of profes-
sional quality -- the primary requirement is that you have some-
thing to say that's of interest to our readers.

First we'll correct a couple of mistakes in the first news-
letter. If your copy said Symphony runs on the Mindset, it's
wrong. Actually, Ashton-Tate's Framework program does run on the
Mindset, but it's of no practical use unless you install the 128K
RAM Expansion Module ($349).

Also, we incorrectly stated that the powered RS-232 module
that accompanies the Mindset Graphics Tablet (powered so that you
don't need a separate power cord for the tablet) couldn't be used
with modems for telecommunications. There is a power switch on
the module, and with the switch turned off, it acts just like a
regular Mindset RS-232 interface.

Mindset has just announced the release of its Video Produc-
tion package. For $4000, you get a fully-configured computer
(two drives and 256K RAM), a 'genlock box' for combining video
signals with computer graphics onto videotape, and the necessary
software. The cost of the additional hardware and software to
those who've already bought the computer is approximately $2000.
We'll cover the system more fully in a future issue of the news-
letter. At $4000 and approaching the performance of systems
costing ten times as much, if this doesn't sell lots of Mindsets,
nothing will. Incidentally, Mindset is developing a color digi-
tizing system in-house, but it won't be ready for some time.

THE MAILBAG

Dear FMUG,

BOFFO! First a fabulous computer, and now a great newsletter for all the wise souls who know a superior product when they see it. 1984 has been one hell of a year! Macintosh, don't make me laugh. Mindset is the computer for the rest of us.

I work for a large DEC (Digital Equipment Corp.) distributor, and for some time I had considered buying either a DEC Rainbow or a Pro, both of which offer costly graphics options which barely compare with the inborn capabilities of the Mindset. I'm glad I waited. My tongue is nearly bitten clean through from restraining myself from making heretical recommendations to my company's clients when they come in to see the DEC machines. I'm always inclined to take them aside and say, "Now let's go to my house for a look at the machine you really want." The things we do to make a living.

Good Guy of the Month, maybe the Year, kudos to Skip Satterlee at Mindset. While I've been getting to know my machine he's been most helpful in providing a wealth of information, suggestions, hints, and corrections and clarifications to the sometimes fuzzy GW BASIC documentation.

My only complaints stem from the attitudes of dealers I've encountered, and the lackluster Mindset advertising campaign. Until I corrected him, my dealer acted like it was a color Mac -- mouse, pull-up Lumena menus, etc. He seems to be only marginally aware of the things that make it a unique machine, like its animation and sound capabilities, 80186 technology, and numerous other features. The Mindset "Pop Demo" and the Lumena Demo are nice, but hardly tell the tale of the machine's amazing powers. If I were a dealer I would have the Mindset hooked up to an audio system playing music and a projection TV displaying animation effects. Next to this I would have a PC or Mac whose display shows the word "Sorry." As for the ads that say no printed pictures could do the machine justice, I say "Try." The tiger picture, a price performance chart -- anything would be better than that dumb ad. Sorry, Mr. B., but I think you could have kept your production people working all summer with a different ad.

One more thing. Two books I've found to be quite helpful when working with GW BASIC are <u>Graphics Programming Made Easy for the IBM PC and XT</u> and <u>Fancy Programming in IBM PC BASIC</u>. Both are written by Gabriel Cuellar and published by Reston Publishing. Of course there are no details about the Mindset-specific extensions to GW BASIC like OBJECT, but for most of the other features of the language they are appropriate, and they have numerous program examples that provide a valuable supplement to the GW manual. I strongly recommend them to anyone getting heavily into GW BASIC graphics programming.

Timothy F. Negris
Norcross, GA

MORE MINDSET IN PRINT

Mr. Negris also sent copies of two articles from Microsystems magazine. The first, from the July 1984 issue, compares "Graphics on the DEC PRO 350, NCR PC, and Mindset." A review of the Mindset entitled "Mindset: Fast High Resolution Graphics" appears in the August 1984 issue.

The first article about three very disparate systems provides some interesting notes, if not a very useful comparison. For instance the two more expensive systems (NCR,$7250;DEC PRO,$11,100) could show only eight colors at a time, while the $3440 Mindset (prices are for a graphics development system including hard disk (not Mindset) and development software) can show 16. In a speed comparison, the Mindset ran an interpreted BASIC Sieve of Eratosthenes (a classic benchmark involving finding prime numbers) program in 15.3 seconds, while the NCR and DEC took 27.1 and 24.4 seconds respectively. In a test requiring the drawing of 126 circles of decreasing radii, the Mindset took 9 seconds, while the other two took 124 and 27 seconds. In a quadrilateral test involving the drawing of 100 quadrilaterals, the Mindset took 5.8 seconds, and the other two 265 and 25. The Mindset came in second only in the filled quadrilaterals test, taking 102 seconds to draw 100 filled shapes, while the NCR took 4450 seconds and the DEC PRO took 62.

According to David Fournier, the author, the Mindset "represents one of the very few microcomputer products which meet the minimum color display requirements for the NAPLPS (North American Presentation Level Protocol Syntax) videotex and teletext standards This means that, with appropriate software, it could properly display the frames residing on most videotex systems. It is an excellent candidate for use as a videotex terminal."

He concludes "Overall, the prices seem greatly different, but on closer inspection, the differences seem to be based on the hardware features and software support provided. You get what you pay for." Also, "The speed in displaying its own set of primitives, and the price, color flexibility, and slightly lower resolution of the Mindset make it more suitable for animation, games, and videotex, where cost, drawing speed, and esthetics are of prime importance."

The writer of the August review had access only to a "buggy pre-release version of Lumena" and was using a TV set as a monitor, so wasn't able to provide any new information. He concludes, as have others, the the Mindset "needs only the right amount and the right kind of software support to be a great machine."

The November issue of Computer Graphics World magazine, dealing with PC graphics, has an article about the Mindset in conjunction with a program called ExecuVision, as pointed out by FMUG member Douglas Hoyt. We're trying to get hold of a copy,

and will write about it as soon as we do.

Also, we're pleased to report that PC World has accepted our review of the Mindset, written at the request of its editors. It will appear in the March 1985 issue in the Compatibles Update column. Watch for it.

CLEAN MACHINE

What? You mean to tell us you don't wash your hands every time before you sit down at your Mindset? With head downcast, we must also admit to such negligence. As owners of the only personal computer that resides in the collection of New York's Museum of Modern Art, we have an interest in keeping our machines looking pretty. If your Mindset is starting to lose its pristine appearance, wipe it with a rag moistened with rubbing alcohol. Use a very soft brush to clean between the keys. And always keep those disks covered when not in use!

DISK LIBRARY

Speaking of disks, we've started to accumulate a library of disks containing various sorts of programs which are available to members. For each disk you want, send $4 or a blank, formatted disk and postpaid return mailer to the above address. Here are some brief descriptions:

1. C Disk -- Member Warren Leong of Sunnyvale, home of Mindset, has provided a disk full of programs he wrote in Lattice C, most of which require the ANSI.SYS handler and a mouse. The disk includes source code and and a compiled executable versions, and there are two source library INCLUDE files for use by various programs. TERMU is a terminal emulator. ARTILLERY is a two-player cannon game. LIFE1 is Warren's customized version of the classic computer simulation/game, with user-selectable or default colors and patterns. Other programs include a color demo and a hex/ASCII file dump. There's also a sample CONFIG.SYS that shows you how to load ANSI.SYS.

Three disks of public domain PC programs were provided by member Dave Mentley:

2. BATCH TUTOR is an extensive, excellent tutorial on the use of batch files. Everything you ever wanted to know about the little buggers is on this disk, presented in friendly, understandable language with numerous examples.

3. UTIL1 includes many utilities, including a program to convert files between WordStar and DOS format. Another lets you print graphics (from PC-standard screens) to a Graftrax printer with the PRT SCN key. BASIC programs include GRAPH, PLOT3D, ADD-LF (add linefeeds to downloaded files), INVNTORY, and AMORT. There's also a machine-language program that cross-references BASIC programs, and much more.

4. GAMES includes such titles as MORSECOD, KSCOPE, SERPENT,
KINGDOM, CRAZY8, BLACKBOX, HANGMAN, WUMPUS, CHASE, BLAKJAK,
OTHELLO, and VAMPIRE. Some programs may require fiddling to work
on the Mindset.

We're currently compiling a disk of user-submitted Mindset
programs, in GW BASIC or any other language. If you submit a
program that's used, we'll copy the entire finished disk onto
your submission disk and return it to you.

MEETING

    The second monthly meeting of the First Mindset Users Group
was held from 7 to 10 P.M. at Mission High School in San Francis-
co. With 18 in attendance, the group almost filled the small
classroom we were assigned. As one of the first orders of busi-
ness, Jeff Patterson of Graphic Reproduction, 981 Mission Street
in San Francisco, kindly offered to allow us to hold future
meetings at his place of business. Jeff's company has recently
become the first San Francisco retailer of Mindset computers.
Even more notably, Graphic Reproduction, a large multi-faceted
graphics arts company, has never sold microcomputers before. The
fact that this retailing agreement between Graphic Reproduction
and Mindset has occurred is strong evidence of the turn away from
the standard microcomputer audience by Mindset's marketing de-
partment. It also shows the need the graphics and design indus-
try has of such a machine. Graphic Reproduction will support its
customers in many ways that no traditional computer retailer can.
For instance, a designer can take lots of time to work out all
the major points of a new project on his or her Mindset, then
come in to Graphic Reproduction and use very similar software to
create a professional finished product on a machine with much
higher resolution. Other services include provision of slides,
color print-outs, rentals, and more. If you're interested, con-
tact Jeff at (415) 777-9346.

    Most of the meeting was taken up by software demonstrations.
First, Gary Furr, who designed Designer for Datasoft, demonstra-
ted the Video Production software. Next month he will bring the
video hardware and demo the entire system. He also gave a brief
demo of his Designer program, which is marketed under the Mindset
label. His partner, Kevin Furry, demoed two very impressive
programs in progress; an animation editor and a sound editor.
The sound editor uses the mouse to quickly change various parame-
ters of Mindset's most flexible mode -- three voices with special
effects. David Joly, who uses CADDRAFT to design electric cir-
cuitry in his business, game a demonstration of that program.
Chris Hall showed some BASIC graphics programs and a couple of
nifty Designer animations.

MINDSET MONITORS

Choosing a monitor for the Mindset computer is a much more important decision than choosing one for an ordinary computer. Sharpness and correct color rendition are particularly crucial in professional graphics work. What follows is a biased first- and second-person report on monitors, and should not be construed as anything else.

Our monitor is a Sears Total Video System TV/Monitor that we bought for several reasons, by no means the least of which was its $340 retail price. The name Total Video System is no misnomer -- the only feature the Sears unit lacks is stereo sound capability. With a 13-inch screen, it's essentially an RGBI (Red-Blue-Green-Intensity) monitor, a composite video (analog) color monitor, and a color TV in one. Convenient buttons on the front let you change modes, effect a 'green-screen' mode, and compress the RGBI display vertically to eliminate scan lines in text displays. The RGBI image is extremely sharp, allowing us to perform word processing easily from four feet away. One minor problem is that color number six (RGBI color, by nature, is capable of only 16 true colors), instead of appearing brown as it's supposed to, is a sickly olive color. Also, with this monitor as well as other 'multi-mode' types (e.g. Sony Profeel), when you change the border color, all screen colors are affected, usually in an undesirable way. Many Mindset demos and programs do change this border color, and if the user can't reset it, his only alternative is to use the program in TV mode. This doesn't happen with RGB-only monitors like the Taxan 420 and the Princeton HX-12. The Sears' video mode is good if you don't mind a bit of color fringing, which results in false colors in fine detail work. The TV works fine but tends to distract one from more important work, a purely subjective consideration. You always bypass the TV mode on the way from RGB to Video, so best to leave the tuner set to an unused channel.

Most Mindset retailers display and package the machine with a standard RGBI monitor like the aforementioned Taxan and Princeton units. If you haven't decided on a monitor yet, or wish to upgrade, we highly recommend Taxan's new 420L monitor, which seems ideally suited to the Mindset, instead. It has an analog video circuit, which means that you can use all of Mindset's 512 colors on an RGB-quality display. What's more, the 420L's interlaced mode can handle Mindset's 640-by-400 ultra-high-resolution mode without flicker. Contact Taxan at 18005 Courtney Ct., City of Industry, CA 91748, (818) 810-1291.

SOFTWARE REVIEW

4 Point Graphics was described at a FMUG meeting recently as "the WordStar of graphics programs." Actually, this is inaccurate, as most current versions of WordStar can be customized to be command or menu-driven, whereas 4-Point is command-driven only. And there are quite a few commands!

All commands, including cursor movement, are entered via the

keyboard.   There are sixteen basic commands, and many variations
and combinations of these are available.   In most cases, commands
are single-key mnemonics; for example, press C to begin drawing a
circle.   Many commands, however, are non-mnemonic (e.g. Shift-F9
to clear the screen), and aren't easy to remember.   A well organ-
ized Quick Reference Guide accompanying the manual provides quick
access to these, once you've become familiar with the program.

       The program is named after its cursor, which can vary in
form from one to four points.   The one-point cursor is used for
freehand drawing, and the two-point cursor draws lines and line
segments.   The three-point cursor creates ellipses, arcs, and
triangles, while four points are used for rectangles and for
framing areas.   Once an area is framed, you can manipulate it in
various ways, including erasing all outside or in the frame.   You
can reduce or enlarge the framed image in different directions,
rotate it 90 degrees, move the image, or texture the screen with
the framed image.   You can also save the framed image on disk.

       The use of the cursor is perhaps this program's most elabo-
rate aspect.   With single-key commands, you can move the cursor
in any of the eight compass directions in increments that you
set.   You can mark a cursor location and return to it instantly
from anywhere on the screen.   You can set cursor wrap on or off.
If attached, a mouse can be used for quick cursor movement.   The
cursor can be set to operate on 'automatic pilot', which means
that you tell it which direction to move in and how fast to move,
and it goes by itself, drawing circles or whatever all the while.
Many interesting effects can be created with this mode.

       Because 4-Point is meant to be used with RGBI monitors,
there is no provision for setting your own palette.   The standard
sixteen colors are represented twice each in twin parallel color
bars under the screen, each with an independent cursor indicating
the currently selected color.   The top cursor shows the color
used for drawing lines, etc. while the bottom color combines with
the top for dithered fills.   You can set border and background
colors to any you desire.   Instant on-screen color conversions
can be effected by setting a color in the top row to any in the
bottom.

       Other functions include: Any size image can be captured in a
memory buffer, then replaced onto the screen, or drawn with.   The
Zoom feature offers three levels of magnification for fine detail
work.   Another feature lets you flip the entire screen vertical-
ly.   You can texture a selected area or the entire screen with up
to four repeating vertical color bars, a feature most likely of
interest to those who need to spiff up Lotus 1-2-3 graphs.

Also, you can add text to your images simply by typing on the keyboard (after invoking the proper command). Adjustments may be made to character and line spacing. Another feature of interest to business users lets you create presentation segments and chain them together. A segment is essentially a recording of all commands you give the program and their effects, and may be saved as disk files and linked together for an automated, animated presentation. You can enter predefined images into segments by loading them from disk.

One of 4-Point's most interesting features is actually an auxiliary utility program called Mindset Graphics Interface, or MGI for short. Briefly, MGI gives 4-Point graphic compatibility with almost any other program you can run on the Mindset. You can save drawings and graphs from programs such as Lotus 1-2-3, load them into 4-Point, manipulate them, and print them in any size from one inch to over 24 inches square on a host of printers. Unfortunately, our Gemini 10X isn't one of them. However, if you have an Epson, an IDS, a NEC or C. Itoh, an Okidata, a Radio Shack CGP-220, a Quadjet, a Transtar color printer, a PrintaColor TC1040, a HP7475A Plotter, a Diablo C150, or a Tektronix 4695 Ink Jet, you're set. If you're printing in black-and-white, you can map MGI's textures to your colors as you wish, or use a default map. You can also map colors for a color printer. Once MGI is loaded, you can load and run almost any other graphics program and use MGI to load, save, and print pictures and selected portions thereof from within the graphics program. Unfortunately, MGI is incompatible with Lumena, because that program was designed when the projected memory ceiling for the Mindset was 256K. A revision is being considered.

The 4-Point manual is brief but thorough, beginning with an introduction and instructions for getting started. Following this is an eight-lesson tutorial in the basics of drawing with 4-Point. Points covered include the use of the different cursors, the screen layout, different geometric shapes, using disk files, zooming for precision, and creating presentation. The next section, 4-Point In Depth, contains reference material, and given the complexity of the program, is bound to be revisited often by the user. Finally, an extensive section on the use of MGI tells you all you ever need to know about this eminently useful program. If you own one of the indicated printers and have need for its services, MGI alone may be worth the price for 4-Point to you. If you use business graphics, 4-Point gives you an easy way to make full use of Mindset's palette for presentations.

-- David Duberman